

What I claim is :

1. An air venting system for a gas exhaust conduit of a waste containing system
5 selected from the group consisting of waste treatment system, waste conveying system and substantially closed waste container, said system comprising :
 - a body defining an inner chamber; said body having at least one inlet opening intended for receiving gases from the gas exhaust conduit and at least one outlet opening intended for releasing gases out of the body, and
 - 10 - at least one odor absorbing means placed in the inner chamber, said odor absorbing means having (a) an inlet surface through which gas from the waste containing system enters into the odor absorbing means and (b) an exhaust surface through which gas from the waste containing system flows out of the odor absorbing means after flowing through at least a portion of said odor absorbing means,
 - 15 whereby the system is adapted for defining a gas flowing path between the inlet surface and the exhaust surface of the odor absorbing means, said flowing path in the odor absorbing means having at least a first flow path portion with a first flow direction defined by at least one vector and a second flow path portion with a second flow direction defined by at least one vector, whereby at least one vector of the second flow direction is opposite to a vector of the first flow direction.
2. The air venting system of claim 1, in which the system is adapted for defining a gas flowing path between the inlet opening and the outlet opening, said flowing path defining at least a upwards flow path portion and a downwards flow path portion in the odor absorbing means.
25
3. The air venting system of claim 1, in which the odor absorbing means is placed in the inner chamber so as to define a volume free of odor absorbing means,
30 whereby gas flowing from the inlet opening towards the outlet opening flows at least partly from the inlet opening through a portion of the odor absorbing means

towards the volume free of odor absorbing means, and through another portion of the odor absorbing means from the volume free of the odor absorbing means towards the outlet opening.

5 4. The air venting system of claim 1, in which the inner chamber is defined by at least one wall, and in which the odor absorbing means is placed in the inner chamber so as to define between the said at least one wall of the chamber and the odor absorbing means a space free of odor absorbing means but closed by said odor absorbing means, whereby gas flows in or out said space only through the odor absorbing means, whereby gas flowing from the inlet opening towards the outlet opening flows at least partly from the inlet opening through a portion of the odor absorbing means towards the volume free of odor absorbing means, and through another portion of the odor absorbing means from the volume free of the odor absorbing means towards the outlet opening.

10

15 5. The air venting system of claim 1, in which the odor absorbing means is placed in the inner chamber so as to define a volume free of odor absorbing means, whereby gas flowing from the inlet opening towards the outlet opening flows at least partly according to an upwards flow path from the inlet surface of the odor absorbing means and through a portion of the odor absorbing means towards the volume free of odor absorbing means, and at least partly according to a downwards path from the volume free of the odor absorbing means through another portion of the odor absorbing means towards the exhaust surface thereof.

20

25 6. The air venting system of claim 1, in which the inner chamber is defined by at least one wall, and in which the odor absorbing means is placed in the inner chamber so as to define between the said at least one wall of the chamber and the odor absorbing means a space free of odor absorbing means but closed by said odor absorbing means, whereby gas flows in or out said space only through the odor absorbing means, whereby gas flowing from the inlet opening towards the outlet opening flows at least partly upwardly from the inlet opening through a portion of

30

the odor absorbing means towards the volume free of odor absorbing means, and at least partly downwardly through another portion of the odor absorbing means from the volume free of the odor absorbing means towards the outlet opening.

- 5 7. The air venting system of claim 1, in which the odor absorbing means is a charcoal containing absorbing means.
- 8. The air venting system of claim 1, in which the odor absorbing means has an inlet surface and an exhaust surface, whereby gas flowing from the inlet opening towards the outlet opening flows in the odor absorbing means through the inlet surface and outlet the odor absorbing means through the exhaust surface, whereby the exhaust surface is at least greater than the inlet surface.
- 10 9. The air venting system of claim 1, in which the odor absorbing means has an inlet surface and an exhaust surface, whereby gas flowing from the inlet opening towards the outlet opening flows in the odor absorbing means through the inlet surface and outlet the odor absorbing means through the exhaust surface, whereby the exhaust surface is greater than 1.5 times the inlet surface.
- 15 10. The air venting system of claim 1, in which the odor absorbing means has an inlet surface and an exhaust surface, whereby gas flowing from the inlet opening towards the outlet opening flows in the odor absorbing means through the inlet surface and outlet the odor absorbing means through the exhaust surface, whereby the exhaust surface is comprised between 1.5 and 5 times the inlet surface.
- 20 11. The air venting system of claim 1, said system comprising a tubular body defined by a cylindrical wall and extending between a bottom end up to a top end, a cover cooperating with the top end of the tubular body to form a chamber extending above the top end of the tubular body and associated with a peripheral channel extending outlet the cylindrical wall of the tubular body, whereby the bottom end of the tubular body defines the inlet opening, while the peripheral
- 25
- 30

channel is provided with at least one outlet opening, and whereby the odor absorbing means is located at least partly in the chamber.

12. The air venting system of claim 1, said system comprising a tubular body
5 defined by a cylindrical wall and extending between a bottom end up to a top end, a cover cooperating with the top end of the tubular body to form a chamber extending above the top end of the tubular body and associated with a peripheral channel extending outlet the cylindrical wall of the tubular body, whereby the bottom end of the tubular body defines the inlet opening, while the peripheral
10 channel is provided with at least one outlet opening, and whereby the odor absorbing means is located as least partly in the chamber, as well as partly in the peripheral channel.

13. The air venting system of claim 1, said system comprising a tubular body
15 defined by a cylindrical wall and extending between a bottom end up to a top end, a cover cooperating with the top end of the tubular body to form a chamber extending above the top end of the tubular body and associated with a peripheral channel extending outlet the cylindrical wall of the tubular body, whereby the bottom end of the tubular body defines the inlet opening, while the peripheral
20 channel is provided with at least one outlet opening, and whereby the odor absorbing means is located as least partly in the chamber, as well as partly as in the tubular body.

14. The air venting system of claim 1, said system comprising a tubular body
25 defined by a cylindrical wall and extending between a bottom end up to a top end, a cover cooperating with the top end of the tubular body to form a chamber extending above the top end of the tubular body and associated with a peripheral channel extending outlet the cylindrical wall of the tubular body, whereby the bottom end of the tubular body defines the inlet opening, while the peripheral
30 channel is provided with at least one outlet opening, and whereby the odor

absorbing means is located as least partly in the chamber, as well as partly as in the tubular body and at least partly in the peripheral channel.

15. The air venting system of claim 14, in which the odor absorbing means has the
5 form of a body, said body having a circular groove in which the top end of the
tubular body is introduced.

16. A process for absorbing odor exhausted through an outlet of a gas exhaust
conduit of a waste containing system selected from the group consisting of waste
10 treatment system, waste conveying system and substantially closed waste
container, in which the outlet of said gas exhaust conduit is provided with a system
comprising :

15 - a body defining an inner chamber; said body having at least one inlet opening
intended for receiving gases from the gas exhaust conduit and at least one outlet
opening intended for releasing gases out of the body, and
- at least one odor absorbing means placed in the inner chamber, said odor
absorbing means having (a) an inlet surface through which gas from the waste
containing system enters into the odor absorbing means and (b) an exhaust
surface through which gas from the waste containing system flows out of the
20 odor absorbing means after flowing through at least a portion of said odor
absorbing means,

25 whereby the system is adapted for defining a gas flowing path between the inlet
surface and the exhaust surface of the odor absorbing means, said flowing path in
the odor absorbing means having at least a first flow path portion with a first flow
direction defined by at least one vector and a second flow path portion with a
second flow direction defined by at least one vector, whereby at least one vector of
the second flow direction is opposite to a vector of the first flow direction.

30 17. The process of claim 16, in which the system is adapted for defining a gas
flowing path between the inlet opening and the outlet opening, said flowing path

defining at least a upwards flow path portion and a downwards flow path portion in the odor absorbing means.

18. The process of claim 16, in which the odor absorbing means is placed in the inner chamber so as to define a volume free of odor absorbing means, whereby gas flowing from the inlet opening towards the outlet opening flows at least partly from the inlet opening through a portion of the odor absorbing means towards the volume free of odor absorbing means, and through another portion of the odor absorbing means from the volume free of the odor absorbing means towards the outlet opening.

19. The process of claim 16, in which the odor absorbing means is placed in the inner chamber so as to define a volume free of odor absorbing means, whereby gas flowing from the inlet opening towards the outlet opening flows at least partly according to an upwards flow path from the inlet surface of the odor absorbing means and through a portion of the odor absorbing means towards the volume free of odor absorbing means, and at least partly according to a downwards path from the volume free of the odor absorbing means through another portion of the odor absorbing means towards the exhaust surface thereof.

20. The process of claim 16, in which the inner chamber is defined by at least one wall, and in which the odor absorbing means is placed in the inner chamber so as to define between the said at least one wall of the chamber and the odor absorbing means a space free of odor absorbing means but closed by said odor absorbing means, whereby gas flows in or out said space only through the odor absorbing means, whereby gas flowing from the inlet opening towards the outlet opening flows at least partly from the inlet opening through a portion of the odor absorbing means towards the volume free of odor absorbing means, and through another portion of the odor absorbing means from the volume free of the odor absorbing means towards the outlet opening.

21. The process of claim 16, in which the inner chamber is defined by at least one wall, and in which the odor absorbing means is placed in the inner chamber so as to define between the said at least one wall of the chamber and the odor absorbing means a space free of odor absorbing means but closed by said odor absorbing means, whereby gas flows in or out said space only through the odor absorbing means, whereby gas flowing from the inlet opening towards the outlet opening flows at least partly upwardly from the inlet opening through a portion of the odor absorbing means towards the volume free of odor absorbing means, and at least partly downwardly through another portion of the odor absorbing means from the volume free of the odor absorbing means towards the outlet opening.

10

22. The process of claim 16, in which the odor absorbing means is a charcoal containing absorbing means.

15 23. The process of claim 16, in which the odor absorbing means has an inlet surface and an exhaust surface, whereby gas flowing from the inlet opening towards the outlet opening flows in the odor absorbing means through the inlet surface and outlet the odor absorbing means through the exhaust surface, whereby the exhaust surface is at least greater than the inlet surface.

20

24. The process of claim 16, in which the odor absorbing means has an inlet surface and an exhaust surface, whereby gas flowing from the inlet opening towards the outlet opening flows in the odor absorbing means through the inlet surface and outlet the odor absorbing means through the exhaust surface, whereby the exhaust surface is greater than 1.5 times the inlet surface.

25

25. The process of claim 16, in which the odor absorbing means has an inlet surface and an exhaust surface, whereby gas flowing from the inlet opening towards the outlet opening flows in the odor absorbing means through the inlet surface and outlet the odor absorbing means through the exhaust surface, whereby the exhaust surface is comprised between 1.5 and 5 times the inlet surface.

30

26. The process of claim 16, in which the system comprises a tubular body defined by a cylindrical wall and extending between a bottom end up to a top end, a cover cooperating with the top end of the tubular body to form a chamber extending above the top end of the tubular body and associated with a peripheral channel extending outlet the cylindrical wall of the tubular body, whereby the bottom end of the tubular body defines the inlet opening, while the peripheral channel is provided with at least one outlet opening, and whereby the odor absorbing means is located at least partly in the chamber.

10 27. The process of claim 16, in which the system comprises a tubular body defined by a cylindrical wall and extending between a bottom end up to a top end, a cover cooperating with the top end of the tubular body to form a chamber extending above the top end of the tubular body and associated with a peripheral channel extending outlet the cylindrical wall of the tubular body, whereby the bottom end of the tubular body defines the inlet opening, while the peripheral channel is provided with at least one outlet opening, and whereby the odor absorbing means is located as least partly in the chamber, as well as partly in the peripheral channel.

20 28. The process of claim 16, in which the system comprises a tubular body defined by a cylindrical wall and extending between a bottom end up to a top end, a cover cooperating with the top end of the tubular body to form a chamber extending above the top end of the tubular body and associated with a peripheral channel extending outlet the cylindrical wall of the tubular body, whereby the bottom end of the tubular body defines the inlet opening, while the peripheral channel is provided with at least one outlet opening, and whereby the odor absorbing means is located as least partly in the chamber, as well as partly in the tubular body.

25 29. The process of claim 16, in which the system comprising a tubular body defined by a cylindrical wall and extending between a bottom end up to a top end, a cover cooperating with the top end of the tubular body to form a chamber

extending above the top end of the tubular body and associated with a peripheral channel extending outlet the cylindrical wall of the tubular body , whereby the bottom end of the tubular body defines the inlet opening, while the peripheral channel is provided with at least one outlet opening, and whereby the odor
5 absorbing means is located as least partly in the chamber, as well as partly as in the tubular body and at least partly in the peripheral channel.

30. The process of claim 29, in which the odor absorbing means has the form of a body, said body having a circular groove in which the top end of the tubular body
10 is introduced.

31. A waste containing system selected from the group consisting of waste treatment system, waste conveying system and substantially closed waste container, said waste containing system being provided with at least one gas
15 exhaust conduit provided with an air venting system according to any one of the claims 1 to 15.